

We claim:

- 1 1. A method for maintaining at a server frame context for a device, the method  
2 comprising:  
3 generating a first data structure having a first pointer for a first frame and a  
4 second pointer for a second frame;  
5 associating a first context indicator with the first data structure; and  
6 sending from a server to a device the first context indicator, the first pointer, and a  
7 first document pointed to by the first pointer.
- 1 2. The method of claim 1, further comprising:  
2 receiving at a server from the device the first context indicator, the first pointer,  
3 and a request;  
4 generating based on the request a second data structure with a third pointer for the  
5 first frame and a fourth pointer for the second frame.
- 1 3. The method of claim 1, further comprising:  
2 receiving at a server from the device a request; and  
3 generating based on the request a second data structure having a third pointer for  
4 the first frame and a fourth pointer for the second frame.
- 1 4. The method of claim 2, further comprising assigning the first context indicator  
2 and the first pointer to a current context indicator.
- 1 5. The method of claim 2, further comprising:  
2 associating a second context indicator with the second data structure; and  
3 sending to the device the second context indicator, the third pointer, and a second  
4 document pointed to by the third pointer.
- 1 6. The method of claim 2, further comprising:  
2 associating a second context indicator with the second data structure; and  
3 assigning the second context indicator and the third pointer to a current context  
4 indicator.

- 1 7. The method of claim 2, further comprising:  
2 associating a second context indicator with the second data structure; and  
3 sending to the device the second context indicator, the fourth pointer, and a  
4 second document pointed to by the fourth pointer.
- 1 8. The method of claim 2, further comprising:  
2 associating a second context indicator with the second data structure; and  
3 assigning the second context indicator and the fourth pointer to a current context  
4 indicator.
- 1 9. The method of claim 2, further comprising:  
2 associating a second context indicator with the second data structure; and  
3 placing the first context indicator and the second context indicator into a list in the  
4 relative order that the first context indicator and the second context indicator were  
5 generated.
- 1 10. The method of claim 2, further comprising:  
2 assigning the first context indicator and the first pointer to a current context  
3 indicator;  
4 wherein assigning the first context indicator precedes receiving at a server from  
5 the device the first context indicator;  
6 assigning the second context indicator and the third pointer to the current context  
7 indicator;  
8 wherein assigning the second context indicator occurs after receiving at a server  
9 from the device the first context indicator.
- 1 11. The method of claim 2, wherein the first pointer and the third pointer point to  
2 different documents.
- 1 12. The method of claim 2, wherein the second pointer and the fourth pointer point to  
2 different documents.
- 1 13. The method of claim 2, further comprising:

2 associating a second context indicator with the second data structure;  
3 placing the first context indicator and the second context indicator into a list in the  
4 relative order that the first context indicator and the second context indicator were  
5 generated.

1 14. The method of claim 2, further comprising:

2 generating a third data structure with a fifth pointer to the first frame and a sixth  
3 pointer to the second frame;

4 associating a third context indicator with the third data structure;

5 sending the third context indicator, the fifth pointer, and a third document  
6 associated with the fifth pointer to the device;

7 receiving at the server from the device the first context indicator, the first pointer,  
8 and a request; and

9 generating based on the request a fourth data structure with a seventh pointer for  
10 the first frame and an eighth pointer for the second frame.

1 15. A method for maintaining at a server frame context for a device that is unable to  
2 display multiple frames, the method comprising:

3 generating a list including at least one data structure;

4 wherein each data structure includes at least two pointers and each of the at least  
5 two pointers corresponds to a different respective frame;

6 wherein each data structure has a corresponding respective context indicator; and

7 sending from a server to a device a first context indicator, a first pointer, and a  
8 first document pointed to by the first pointer.

1 16. The method of claim 15, further comprising:

2 receiving at the server from the device the first context indicator, the first pointer,  
3 and a request;

4 generating based on the request a new data structure;

5 associating a new context indicator with the new data structure;

6 placing the new data structure into the list; and

7 sending from the server to the device a new context indicator, a new pointer  
8 which is associated with the new data structure, and a new document pointed to by the  
9 new pointer.

1 17. The method of claim 16, further comprising:  
2 assigning the first context indicator and the first pointer to a current context  
3 indicator; and  
4 wherein the assigning the first context indicator occurs before receiving at the  
5 server from the device the first context indicator.

1 18. The method of claim 17, further comprising reassigning the first context indicator  
2 and the first pointer to the current context indicator after receiving at the server from the  
3 device the first context indicator.

1 19. The method of claim 16, wherein generating is also based on the first context  
2 indicator and the first pointer.

1 20. A method for maintaining frame context, the method comprising:  
2 receiving at a device a context indicator that points to a data structure on a server;  
3 wherein the data structure has at least two pointers each of which corresponds to a  
4 different respective frame; and  
5 receiving at the device one of the at least two pointers and a document associated  
6 with the one of the at least two pointers.

1 21. The method of claim 20, the method further comprising sending from the device  
2 to the server the context indicator and the one of the at least two pointers.

1 22. The method of claim 21, wherein the sending occurs when a user backtracks to  
2 the document pointed to by the one of the at least two pointers and makes a request  
3 associated with the document.

1 23. The method of claim 21, the method further comprising sending from the device  
2 to the server a request associated with the contest indicator and the one of the at least two  
3 pointers.

1 24. The method of claim 20, the method further comprising storing the context  
2 indicator, the one of the at least two pointers and the document associated with the one of  
3 the at least two pointers.

202009240909